

REMARKS / ARGUMENTS

1. The drawings objected under 37CFR 1.83 (a)

The drawings do show every feature of the invention specified in the claims although some of them may be expressed in broader terms. The “a lump” (cl 3, ln 4) is replaced with “a knot or equivalent retainer” (cl 103, ln 10). The knot is shown in Figs. 1-A to 1-D3 and in many more. The knot is the most inexpensive way to retain a cord-like joint. The “equivalent retainer” is not new matter because it is only a broader recitation of something that performs the function of a knot. The “interlocking rings” (cl 3, ln 5) is replaced with “chain comprising at least two links...” (cl 103, ln 15). This “chain” is already shown in Figs. 2-C to 5-C’. The “interlocking rings” is just an alternate way to describe it. If you look at the figures closely, the joints are really made up of connecting links.

Therefore, no drawing corrections are submitted with this response.

2. The title of the invention is not descriptive

The title Picking Rake is replaced with:

Picking Rake with Dual Handles and Dual Rake Heads for Gathering and Picking Material

3. Objections to Claims 12, 15, 24, and 26

The word “emanating” used in conjunction with the word “extension” in claims 12 and 15 is replaced with “branch extending” in claims 112 and 115. The “said” is eliminated in line 21 of claim 24 and commas are added at the end of lines 4 and 6 of claim 26. The new claims 124 and 126 reflect these corrections.

4., 5., and 6. Claim Rejections – 35 USC §112

Claims 1-26 are amended and renumbered as claims 101-126 (with a few exceptions) with the sequence preserved so as to minimize possible confusion when comparing the original

and amended claims. For example, Claim 1 is amended as claim 101, claim 2 is amended as claim 102 and so on and so forth. Original claims 2 and 3 are combined into a single claim 102 and claims 103, 107 and 110 are newly introduced claims (not new matter) to replace canceled claims 3, 7 and 10 respectively. All the mistakes pointed out, i.e. lack of antecedents, lack of structural support, narrative in form, and informal, indefinite, unclear, functional and operational language are addressed in the amended claims to the best of the applicant's capability.

The applicant has used a 3-part method (preamble – elements – interconnections) plus optional whereby clauses because it is easier to read and understand. The optional whereby clauses are there simply to help emphasize the value and use of the invention. They may appear to be narrative and relatively informal because of this. However, they should have no bearing on the technical validity of the claim.

The functional and operational language are necessary as part of a "means plus function" method of reciting structure. Paragraph 6 of section 112 of the patent laws (35 USC § 112) states, " An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or facts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." The specifications in the application do describe several options of workable structures ramified from the main idea. The only way to cover them all without drawing separate claims for each one of these means and for each possible combination is to use "means plus function" and a Markush grouping.

Some words that the examiner objected to are still used for the following reasons:

1. "so on and so forth" is the best and most concise way of describing a series or pattern that is already understandable by anyone skilled in the art given the antecedents. If this is not acceptable, the applicant solicits the help of the examiner.
2. "substantially" is a way to broaden a claim and is used in many other cited references.
3. "longitudinal center" is a known attribute to any elongated member just like cross section or diameter and anyone skilled in the art would understand it without an antecedent. If an elongated member were cut up cross-wise into an infinite number of sections, each section having a center, a line joining all these centers is the longitudinal center.

Five more claims are added. Claim 127 is a claim dependent on claim 101 while claims 128, 129, 130, and 131 are added to give structural support to the “means plus function” clauses in claims 105, 106, 113, and 116 respectively. On the other hand, considering the patent law cited in the previous paragraph, these additional four claims as well as claims 111, 122 and 123 may not even be necessary because the specifications and drawings can be referred to for all the supporting details. The applicant has noted that some cited references like Hsu (US Pat.# 6,339,919 BI) and Callis (US Pat.# 4,477,114) use means clauses in their claims without additional supporting claims detailing structure.

Therefore, based on the patent law cited above, independent claim 101 describes a complete operative device, novel and unobvious over any prior art cited. Despite its simplicity and clear advantages, no one in the long history of garden tools has come up with an idea close to it. The idea of connecting the dual rake heads side by side is unique and advantageous. Each rake head contributes to the total raking span. The method of picking using the dual heads is unique and advantageous as well. The joint connecting the dual handles are such that maneuverability, ease of use, economy, and pick-up volume are maximized. The recitation of “first means to releasably hold...aligned substantially side by side...continuous contour...” is enough to overcome prior art. It covers the picking rakes depicted in Figs. 1-A and 6-A and all their ramifications and embodiments presented in the specifications and the rest of the drawings. Recitation of the handling members (hand grip and arm grip) although present in all the picking rake figures, is not included in the claim because a user can use the handle itself as the handling member absent the extending branches. The task may be awkward but not anymore awkward than one using some of the patented gathering and picking tools in prior art.

Claim 103 is the second independent claim. Original claim 3 was drawn as a claim dependent on claim 2. However, because it is drawn to an element that is already novel by itself when used in conjunction with gathering components of a gathering and picking up tool, it deserves to be a separate independent claim. Otherwise, anyone can just apply the idea to any existing dual-handled raking tool in prior art such as those with completely overlapping gathering components or rake heads without restraint and liability.

Claim 115 is the third independent claim. It is drawn to a ramification that is not covered by the other claims. It broadly covers the handle of a rake depicted in Fig. 6-BR and Fig. 9-R. Note that the arm leverage and the hand grip need not be one continuous structure even though the drawings show them as one. The arm leverage is mainly the part that is a partial loop derived from a branch extending transversely from the rake handle. The hand grip is the branch farther forward from the partial loop. As discussed further in response #7 below, this invention is also novel and unobvious by itself because the idea has never been taught in prior art.

Claim 117 is another independent claim and is drawn to a method of deriving raking and picking up capabilities from a single rake. Because method and apparatus claims can be both allowed in a patent, the applicant is submitting this claim for consideration inasmuch as it is not limited by structure and thus, offers a broader coverage. This method is not taught before in prior art, rendering it novel and unobvious, and therefore, patentable.

Claim 121 is another independent claim and is drawn to a novel and unobvious method of providing and using a quasi-permanently fixable handle length for the handle of a picking rake.

Claim 124 is the last independent claim and is drawn to a novel and unobvious method of telescoping the rake handle of a picking rake.

Because of the large volume of ramification presented in the application, the applicant is using the Markush grouping type of claim for claims 102, 103, 111, 128, 129, 130, and 131. They are all in support of means plus function clauses in their parent claims.

None of the independent claim above depart from the spirit of the invention. They are all drawn towards at least a major component of a tool that can gather and pick up material and are adequately supported in the application. Any use beyond the scope of gathering and picking up material is not claimed.

The applicant has included an Attachment A relating the claims to the drawings in order to facilitate the examination process.

7. References cited

The applicant has reviewed the references cited.

Hoffman (US Pat. # 5,529,357) teaches a movable leverage enhancing assembly that consists of a closed loop for arm leverage. A user has to open the loop and adjust it to his arm's dimensions before use. The present invention teaches an easily accessible partial loop for arm leverage. The present invention also teaches that the hand grip and the partial loop can be a continuous structure. Hoffman teaches towards the use of this assembly mainly to facilitate holding a handle that is pushed and pulled alternately as in sweeping, mopping, scrubbing, even raking. The present invention uses the arm leverage mainly for picking or lifting purposes.

Mencarelli et al. (US Pat.# 5,467,590), Blessing (US Pat.# 6,199,245 B1), and Hinden (US Pat.# D465,705 S) teach of a raking tool with handling members particularly hand grips intended solely to increase efficiency of the user while raking. The present invention teaches of handling members to accommodate grippers and snap buttons to effect a releasable connection between dual rake heads, provide arm leverage, as well as increase efficiency of the user while raking and picking material. The present invention's main claim, claim 101 does not even recite the handling member as an element.

Spencer (US Pat.# 3,164,945) teaches of dual rake heads for raking and picking purposes but the rake heads are totally superimposed or overlapping such that the raking span is not improved at all despite the extra weight imposed by the second rake head. Furthermore, the joint connecting the dual handles in Spencer's rake allows for limited maneuverability in the picking mode.

Hsu (US Pat.# 6,339,919 B1) teaches of a tool having a single handle and dual rake heads disposed alongside each other with a pivotal connection that allows the rake heads to just pivot downward toward each other and does not become separated during the picking up process. As a result, the pick up volume is small.

Callis (US Pat.# 4,477,114) teaches of an arm leverage similar to Hoffman's but uses it for picking purposes. Again, the arm leverage is a flexible complete loop like an arm band that needs adjusting and is not a rigid easily accessible partial loop like the present invention. This flexible component does not provide the kind of leverage needed to help the arm lift material. The tension will be concentrated on to the point of attachment of the arm band to the rake handle, which by its nature is not very strong.

Lawrence (US Pat.# 3,833,250) teaches of a picking tool comprising facing rake heads but uses a cross handle from which the individual rake handles pivot. The direction of the raking or gathering motion differ from the conventional way and the presence of the cross handle connection does not make picking material easier than other methods in prior art.

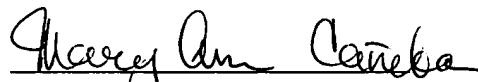
Jenkins, Frank, and Waldschmidt all teach toward gathering tools that are different in so many respects that they can never have anticipated the present invention.

8. Conclusion and Conditional Request for Constructive Assistance

Therefore, it is submitted that patentable subject matter is clearly present. If the examiner agrees but does not feel that the present claims are technically adequate, the applicant respectfully requests the constructive assistance and suggestions of the examiner pursuant to M.P.E.P. 706.03 (d) and 707.07 (j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Thank you for your consideration.

Very respectfully,



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Date: April 30, 2003

Inventor's Signature: Mary Ann Caniba